Claims

1. A method for combusting an organic waste concentrate, which contains alkali metal compounds, under oxidative conditions for recovering said alkali metal compounds as alkali metal carbonates, **characterized** in that the combustion is carried out at a temperature of at least 850°C, and the formed flue gases are cooled below a sticking temperature range of the alkali metal carbonates formed during the combustion by mixing a colder medium to the flue gases, and simultaneously water is poured on the walls of a cooling zone at least at the sticking temperature range, whereby alkali metal carbonates formed during the combustion dissolve in water to form a recoverable aqueous solution.

2. The method according to claim 1, **characterized** in that the combustion is carried out at a temperature ranging from 900 to 1250°C, which is controlled by the amount of combustion air.

3. The method according to claim 1 or 2, **characterized** in that the formed flue gases are cooled below 600 °C by mixing water and/or air and/or colder flue gas to said formed flue gases.

4. The method according to any of the preceding claims, **characterized** in that an aqueous solution containing dissolved alkali metal carbonates is poured on the walls of the cooling zone.

5. The method according to any of the preceding claims, **characterized** in that a waste concentrate having a solids content of at least about 25% by weight is combusted.

6. The method according to any of the preceding claims, **characterized** in that a stoichiometric excess of limestone and/or burnt lime with respect to sulfur and silicate compounds contained in the waste concentrate to be combusted is added to the combustion.

7. The method according to claim 6, **characterized** in that lime stone and/or burnt lime is added in a finely pulverized form to a waste concentrate to be combusted prior to drying thereof.

8. The method according to any of the preceding claims, **characterized** in that the waste concentrate to be combusted is a dry powder.

9. The method according to any of the preceding claims, **characterized** in that the waste concentrate to be combusted is a spent liquor concentrate from impregnation and/or bleaching of mechanical or chemi-mechanical pulp.